



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1

5 Post Office Square, Suite 100

Boston, MA 02109-3912

**MAY 27 2015**

Brian W. Armet, P.E.  
Executive Director  
Mattabassett District Water Pollution Control Facility  
245 Main Street  
Cromwell, CT 06416

Re: Request for Alternative Monitoring of Granular Activated Carbon and Fugitive Ash at the Mattabassett District Water Pollution Control Facility's Sewage Sludge Incinerator in Cromwell, Connecticut

Dear Mr. Armet,

On March 4, 2015, Melissa Hamkins of the consulting firm Wright-Pierce submitted a letter on behalf of the Mattabassett District Water Pollution Control Facility ("Mattabassett") to the United States Environmental Protection Agency's Region 1 office in Boston, MA ("EPA"). The letter concerns a sewage sludge incinerator located at 245 Main Street in Cromwell, Connecticut which is subject to the requirements of 40 C.F.R. Part 60, Subpart LLLL, Standards of Performance for New Sewage Sludge Incinerators ("Subpart LLLL"). The letter, as amended by supplemental materials provided by Ms. Hamkins and Mattabassett on March 23, April 8, April 22, and April 30, 2015, requested EPA's approval of an alternative monitoring plan for the granular activated carbon adsorption system ("carbon bed") used to control mercury emissions from the sewage sludge incinerator. The letter, as amended, also requested approval of a fugitive ash monitoring plan. EPA provides the following responses.

### **Carbon Bed**

EPA is approving Mattabassett's alternative monitoring plan for the carbon bed under 40 C.F.R. Part 60, Subpart A, section 60.13(i). A similar type of monitoring application for carbon beds used to control mercury is found under 40 C.F.R. Part 63, Subpart EEE, National Emissions Standards for Hazardous Air Pollutants for Hazardous Waste Incineration, (see 40 C.F.R. 63.1209(k)(7)). The alternative monitoring plan that Mattabassett has proposed, combined with the facility's construction permit, meets those requirements.

According to the alternative monitoring plan and the facility's federally enforceable construction permit (Permit Number 043-0030, issued May 13, 2013 by the Connecticut Department of Energy and Environmental Protection), Mattabassett will monitor and record continuously the pressure drop across the carbon bed and the temperature at the inlet and outlet of the humidity



conditioner which precedes the carbon bed. Mattabassett's alternative monitoring plan also includes periodic sampling of the carbon bed medium to determine the remaining available sulfur in the carbon. Mattabassett will sample the carbon from each of the layers in the bed and use this data to establish a predictive curve to forecast the carbon replacement and maintenance activities. According to the plan, Mattabassett will sample and analyze the carbon medium monthly during the first three months of operation, then on the sixth month, and every six months thereafter. Additionally, the facility's construction permit requires annual performance testing for mercury control which will further ensure the ongoing performance of the carbon bed.

### **Ash Handling System Monitoring Plan**

EPA is also approving Mattabassett's request for approval of its ash handling monitoring plan. Table 1 of Subpart LLLL and section 60.4880(d) require the fluidized bed incinerator operator to submit a monitoring plan for ash handling systems to ensure that they meet fugitive emission limits specified in the subpart. Mattabassett's March 4, 2015 site-specific monitoring plan, as amended by the supplemental materials, explains that the ash at the facility is collected using an entirely wet system, including a water quench, a wet scrubber, and a wet electrostatic precipitator system. The plan explains that the ash collected at Mattabassett's system is pumped as a wet slurry to storage ponds and that the ash remains submerged in water at all times.

In the April 22, 2015 letter to EPA, Mattabassett proposed that the monitoring for fugitive ash consist of daily observations of the ash lagoons. The operators will visually verify on a daily basis that the ash remains wet and that the ash lagoons do not have any dry ash which could result in fugitive emissions from the ash lagoons. The observations will be noted in the operator's daily log. EPA agrees with this approach and is approving this aspect of Mattabassett's site-specific monitoring plan.

EPA may alter this approval in the future, in accordance with applicable regulations or changes that occur at the facility. If you have any questions regarding the determination provided in this letter, please contact Steve Rapp at 617-918-1551.

Sincerely,



James Chow, Technical Enforcement Manager  
Office of Environmental Stewardship

Cc: Melissa Hamkins, Wright-Pierce  
Keith Hill, CT DEEP  
Bob Girard, CT DEEP